GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 08/20/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 01/30/2014 Date Data Arrived at EDR: 03/05/2014 Date Made Active in Reports: 07/15/2014

Number of Days to Update: 132

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/04/2014

Next Scheduled EDR Contact: 12/15/2014 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/31/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 44

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 08/29/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 64

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 09/26/2014

Next Scheduled EDR Contact: 01/05/2015 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the

Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/19/2014

Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 08/19/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008

Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 07/22/2014

Next Scheduled EDR Contact: 11/10/2014 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 05/06/2014 Date Data Arrived at EDR: 05/16/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 10/09/2014

Next Scheduled EDR Contact: 10/27/2014 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013 Date Data Arrived at EDR: 07/17/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 107

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/18/2014

Next Scheduled EDR Contact: 10/27/2014 Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 91

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/08/2014

Next Scheduled EDR Contact: 12/22/2014 Data Release Frequency: Quarterly

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2014 Date Data Arrived at EDR: 07/10/2014 Date Made Active in Reports: 07/28/2014

Number of Days to Update: 18

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/10/2014

Next Scheduled EDR Contact: 10/20/2014 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/18/2013 Date Data Arrived at EDR: 02/27/2014 Date Made Active in Reports: 03/12/2014

Number of Days to Update: 13

Source: EPA

Telephone: (312) 353-2000 Last EDR Contact: 09/10/2014

Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 05/23/2014 Date Made Active in Reports: 07/28/2014

Number of Days to Update: 66

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 07/22/2014

Next Scheduled EDR Contact: 11/10/2014 Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/19/2013

Number of Days to Update: 52

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/29/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Biennially

NPDES: A Listing of Active Permits

A listing of facilities currently active in the state. The types of permits are public, private, federal and state.

Date of Government Version: 04/16/2014 Date Data Arrived at EDR: 04/18/2014 Date Made Active in Reports: 05/20/2014

Number of Days to Update: 32

Source: Illinois EPA Telephone: 217-782-0610 Last EDR Contact: 10/06/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

UIC: Underground Injection Wells

Injection wells are used for disposal of fluids by "injection" into the subsurface. The construction of injection wells range from very technical designs with twenty-four hour monitoring to simply a hole dug in the ground to control runoff. As a result of this diversity, the UIC Program divides injection wells into five different classes.

Date of Government Version: 06/05/2014 Date Data Arrived at EDR: 06/06/2014 Date Made Active in Reports: 06/30/2014

Number of Days to Update: 24

Source: Illinois EPA Telephone: 217-782-9878 Last EDR Contact: 08/19/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Varies

HWAR: Hazard Waste Annual Report

Each year, Illinois hazardous-waste generators tell the Illinois EPA the amounts and kinds of hazardous waste they produced during the previous year. Generators indicate by code the types of wastes produced and the steps they took to manage these wastes. If some or all of these wastes were sent to commercial treatment, storage, and disposal facilities (TSDFs), that information and the identity of each receiving facility also are submitted. Illinois TSDFs likewise report the types and quantities of wastes received from in-state and out-of-state generators; they also report the procedures they used to manage these wastes.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 08/14/2014 Date Made Active in Reports: 09/11/2014

Number of Days to Update: 28

Source: Illinois EPA Telephone: 217-524-3300 Last EDR Contact: 07/30/2014

Next Scheduled EDR Contact: 10/27/2014 Data Release Frequency: Annually

DRYCLEANERS: Illinois Licensed Drycleaners

Any retail drycleaning facility in Illinois must apply for a license through the Illinois Drycleaner Environmental Response Trust Fund. Drycleaner Environmental Response Trust Fund of Illinois.

Date of Government Version: 08/25/2014 Date Data Arrived at EDR: 08/26/2014 Date Made Active in Reports: 09/08/2014

Number of Days to Update: 13

Source: Drycleaner Environmental Response Trust Fund of Illinois

Telephone: 800-765-4041 Last EDR Contact: 08/26/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Varies

IMPDMENT: Surface Impoundment Inventory

Statewide inventory of industrial, municipal, mining, oil & gas, and large agricultural impoundment. This study was conducted by the Illinois EPA to assess potential for contamination of shallow aquifers. This was a one-time study. Although many of the impoundments may no longer be present, the sites may be contaminated.

Date of Government Version: 12/31/1980 Date Data Arrived at EDR: 03/08/2002 Date Made Active in Reports: 06/03/2002

Number of Days to Update: 87

Source: Illinois Waste Management & Research Center

Telephone: 217-333-8940 Last EDR Contact: 02/20/2002 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AIRS: Air Inventory Listing

A listing of air permits and emissions information.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 04/18/2014 Date Made Active in Reports: 05/13/2014

Number of Days to Update: 25

Source: Illinois EPA Telephone: 217-557-0314 Last EDR Contact: 10/06/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

TIER 2: Tier 2 Information Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 08/19/2014 Date Made Active in Reports: 09/11/2014

Number of Days to Update: 23

Source: Illinois Emergency Management Agency

Telephone: 217-785-9860 Last EDR Contact: 08/19/2014

Next Scheduled EDR Contact: 12/01/2014 Data Release Frequency: Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/18/2014

Next Scheduled EDR Contact: 10/27/2014 Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 07/25/2014

Next Scheduled EDR Contact: 11/03/2014 Data Release Frequency: Varies

COAL ASH: Coal Ash Site Listing
A listing of coal ash site lcoations.

Date of Government Version: 10/01/2011 Date Data Arrived at EDR: 03/09/2012 Date Made Active in Reports: 04/10/2012

Number of Days to Update: 32

Source: Illinois EPA Telephone: 217-782-1654 Last EDR Contact: 09/05/2014

Next Scheduled EDR Contact: 12/15/2014 Data Release Frequency: Annually

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 06/04/2014 Date Data Arrived at EDR: 06/12/2014 Date Made Active in Reports: 07/28/2014

Number of Days to Update: 46

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 10/06/2014

Next Scheduled EDR Contact: 01/19/2015 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

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Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013 Date Data Arrived at EDR: 07/03/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 72

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 09/30/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/18/2014

Next Scheduled EDR Contact: 10/27/2014

Data Release Frequency: N/A

BOL: Bureau of Land Inventory Database

Bureau of Land inventory for facility information. Data results are cross-linked with all on-line database system applications from IEPA - Bureau of Land as well as USEPA FRS database.

Date of Government Version: 06/20/2014 Date Data Arrived at EDR: 06/23/2014 Date Made Active in Reports: 07/08/2014

Number of Days to Update: 15

Source: Illinois Environmental Protection Agency

Telephone: 217-785-9407 Last EDR Contact: 09/02/2014

Next Scheduled EDR Contact: 12/15/2014 Data Release Frequency: Varies

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 88

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 08/15/2014

Next Scheduled EDR Contact: 11/24/2014 Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 08/01/2014

Next Scheduled EDR Contact: 11/10/2014

Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/23/2013 Date Data Arrived at EDR: 11/06/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 30

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/29/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/23/2013 Date Data Arrived at EDR: 11/06/2013 Date Made Active in Reports: 12/06/2013

Number of Days to Update: 30

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/29/2014

Next Scheduled EDR Contact: 01/12/2015 Data Release Frequency: Annually

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 07/18/2014

Next Scheduled EDR Contact: 10/27/2014 Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011 Date Data Arrived at EDR: 05/18/2012 Date Made Active in Reports: 05/25/2012

Number of Days to Update: 7

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 08/15/2014

Next Scheduled EDR Contact: 11/24/2014 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/19/2014 Date Data Arrived at EDR: 06/20/2014 Date Made Active in Reports: 07/28/2014

Number of Days to Update: 38

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 08/14/2014

Next Scheduled EDR Contact: 12/01/2014 Data Release Frequency: Quarterly

Financial Assurance: Financial Assurance Information Listing

Information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

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Date of Government Version: 06/13/2014 Date Data Arrived at EDR: 06/13/2014 Date Made Active in Reports: 06/27/2014

Number of Days to Update: 14

Source: Illinois Environmental Protection Agency

Telephone: 217-782-9887 Last EDR Contact: 08/19/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Varies

PIMW: Potentially Infectious Medical Waste

Potentially Infectious Medical Waste (PIMW) is waste generated in connection with the diagnosis, treatment (i.e., provision of medical services), or immunization of human beings or animals; research pertaining to the provision of medical services; or the provision or testing of biologicals.

Date of Government Version: 06/23/2014 Date Data Arrived at EDR: 06/26/2014 Date Made Active in Reports: 07/16/2014

Number of Days to Update: 20

Source: Illinois EPA Telephone: 217-524-3289 Last EDR Contact: 09/22/2014

Next Scheduled EDR Contact: 01/05/2015 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 03/14/2014 Date Data Arrived at EDR: 06/11/2014 Date Made Active in Reports: 07/28/2014

Number of Days to Update: 47

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 09/10/2014

Next Scheduled EDR Contact: 12/22/2014

Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc. Date Data Arrived at EDR: N/A Telephone: N/A Date Made Active in Reports: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Number of Days to Update: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Illinois Environmental Protection Agency in Illinois.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/10/2014

Number of Days to Update: 193

Source: Illinois Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Illinois Environmental Protection Agency in Illinois.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/30/2013

Number of Days to Update: 182

Source: Illinois Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Natural Resources in Illinois.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/30/2013

Number of Days to Update: 182

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Case: 1:18-cv-03424 Document #: 85-25 Filed: 02/05/19 Page 10 of 69 PageID #:2944

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 45

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 08/19/2014

Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: No Update Planned

Source: Department of Environmental Protection

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/19/2012 Date Made Active in Reports: 08/28/2012

Number of Days to Update: 40

Next Scheduled EDR Contact: 10/27/2014 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

Telephone: N/A

facility.

Date of Government Version: 05/01/2014 Date Data Arrived at EDR: 05/07/2014 Date Made Active in Reports: 06/10/2014

Number of Days to Update: 34

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/07/2014

Next Scheduled EDR Contact: 11/17/2014 Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 07/21/2014 Date Made Active in Reports: 08/25/2014

Number of Days to Update: 35

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/18/2014

Next Scheduled EDR Contact: 11/03/2014 Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 07/15/2014 Date Made Active in Reports: 08/13/2014

Number of Days to Update: 29

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 08/26/2014

Next Scheduled EDR Contact: 12/08/2014 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 06/20/2014 Date Made Active in Reports: 08/07/2014

Number of Days to Update: 48

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 09/15/2014

Next Scheduled EDR Contact: 12/29/2014 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Homes & Centers Listing

Source: Department of Children & Family Services

Telephone: 312-814-4150

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WOODLAWN SITE 1094 6000 SOUTH STONY ISLAND AVENUE CHICAGO, IL 60637

TARGET PROPERTY COORDINATES

Latitude (North): 41.7832 - 41° 46′ 59.52″ Longitude (West): 87.5855 - 87° 35′ 7.80″

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 451344.6 UTM Y (Meters): 4625658.0

Elevation: 589 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 41087-G5 JACKSON PARK, IL IN

Most Recent Revision: 1998

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

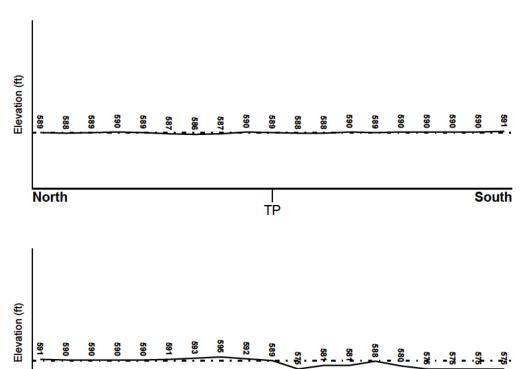
TARGET PROPERTY TOPOGRAPHY

West

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES

Target Property Elevation: 589 ft.



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

1/2

TP

East

1 Miles

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

FEMA Flood Electronic Data

Target Property County COOK, IL

YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:

17031C - FEMA DFIRM Flood data

Additional Panels in search area:

Not Reported

NATIONAL WETLAND INVENTORY

NWI Electronic

NWI Quad at Target Property

Data Coverage

JACKSON PARK

YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 On the control of the control o

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era: Paleozoic Category: Stratifed Sequence

System: Silurian

Series: Middle Silurian (Niagoaran)

Code: S2 (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBANLAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Bedrock Max: > 0 inches

Soil Layer Information										
	Bou	ndary		Classification						
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)			
1	0 inches	60 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00			

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: fine sand

fine sandy loam silty clay loam loamy fine sand

Surficial Soil Types: fine sand

fine sandy loam silty clay loam loamy fine sand

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: sand

fine sand loamy sand silty clay loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

LOCATION FROM TP

MAP ID WELL ID

FEDERAL USGS WELL INFORMATION

 MAP ID
 WELL ID
 FROM TP

 9
 USGS40000299196
 1/2 - 1 Mile North

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID FROM TP

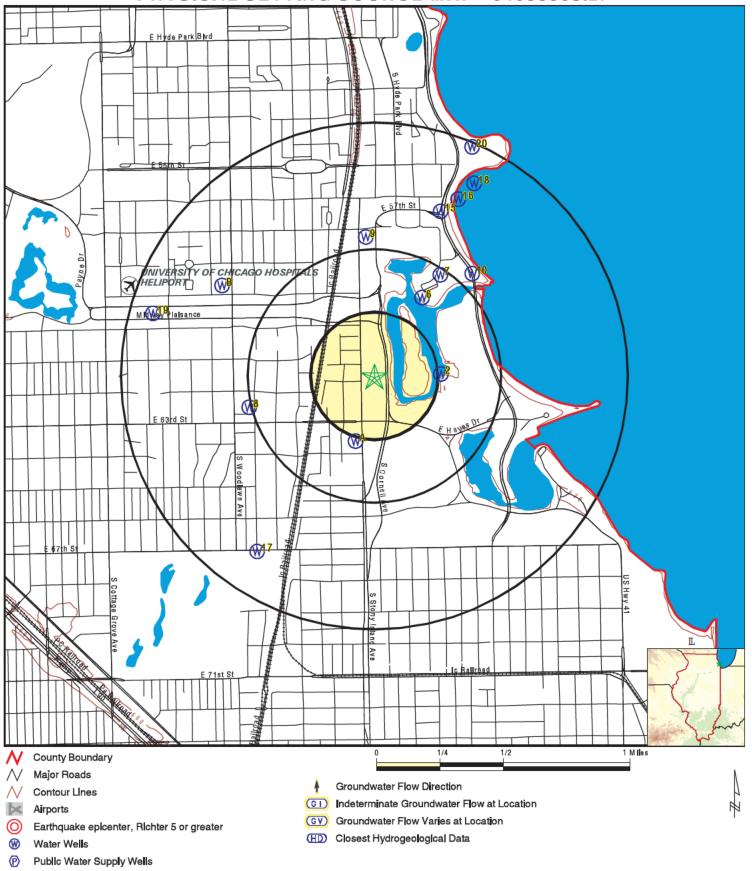
No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
	ĪLSG20000206530	1/8 - 1/4 Mile SSW
2	ILSG20000206863	1/4 - 1/2 Mile East
A3	ILSG20000206500	1/4 - 1/2 Mile SSW
A4	P6672	1/4 - 1/2 Mile South
A5	P6671	1/4 - 1/2 Mile South
6	P6657	1/4 - 1/2 Mile NNE
7	ILSG20000207338	1/4 - 1/2 Mile NNE
8	ILSG20000206642	1/2 - 1 Mile WSW
10	ILSG20000207348	1/2 - 1 Mile NE
B11	P6661	1/2 - 1 Mile WNW
B12	P6658	1/2 - 1 Mile WNW
B13	P6659	1/2 - 1 Mile WNW
B14	P6660	1/2 - 1 Mile WNW
15	ILSG20000207654	1/2 - 1 Mile NNE
16	ILSG20000207717	1/2 - 1 Mile NNE
17	P6670	1/2 - 1 Mile SSW
18	ILSG20000207776	1/2 - 1 Mile NNE
19	ILSG20000207159	1/2 - 1 Mile WNW
20	ILSG20000208002	1/2 - 1 Mile NNE

Case: 1pt provs Ret A/L Dscent renn/G85-05U Fixed E0 A/DA/p9_Porto 9 9 9 5 639. 2 age ID #:2952



SITE NAME: Woodlawn Site 1094

Cluster of Multiple Icons

ADDRESS: 6000 South Stony Island Avenue

Chlcago IL 60637 LAT/LONG: 41.7832 / 87.5855 CLIENT: Environmental Design Int I Inc CONTACT: Alexandra Smith-Dedrick INQUIRY #: 04099563.2r

Map ID Direction Distance Elevation

A1 SSW IL WELLS ILSG20000206530

1/8 - 1/4 Mile Higher

Pt api number: 120310273000 Pt status: WATER

Pt longitude: -87.586915
Pt latitude: 41.780043
Api number: 120310273000
Longitude: -87.586915
Latitude: 41.780043
Section: 23

 Section:
 23
 Twp:
 38

 Tdir:
 N
 Rng:
 14

 Rdir:
 E
 Farm name:
 Askew Art

 Farm num:
 Not Reported
 Company name:
 Wehling Edwin C

Status:Water WellElevation:590Elevref:Ground levelTotal depth:383Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

Lower

Pt api number: 120312626900 Pt status: ENG

Pt longitude: -87.580411
Pt latitude: 41.783312
Api number: 120312626900
Longitude: -87.580411
Latitude: 41.783312

 Section:
 13
 Twp:
 38

 Tdir:
 N
 Rng:
 14

Rdir: E Farm name: Chi Bureau Eng Farm num: Oompany name: Not Reported

Engineering Test Status: Elevation: 0 Not Reported Total depth: Elevref: 50 Wformation: Not Reported Wfmfrom: 0 0 Wfmto: 0 Pumpgpm:

A3
SSW
IL WELLS
1/4 - 1/2 Mile
Higher

Pt api number: 120312657200 Pt status: ENG

Pt longitude: -87.587744
Pt latitude: 41.77967
Api number: 120312657200
Longitude: -87.587744
Latitude: 41.77967

 Section:
 23
 Twp:
 38

 Tdir:
 N
 Rng:
 14

Rdir: E Farm name: Jackson Pk Cta

Farm num: Jpt Company name: Chicago Pub. Works Dept.

Database

EDR ID Number

ILSG20000206500

Status:Engineering TestElevation:588Elevref:Ground levelTotal depth:25Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

A4 South IL WELLS P6672

1/4 - 1/2 Mile Higher

Well ID: 029222 Second ID: Not Reported

Info Source: IL Private Water Wells Survey

Owner: STONEY ISLAND FISH CO/ART ASKE

Permit: M000772 05/00/1966 Date Drilled: Depth (in feet): 383 Aquifer Type: Bedrock County Code: 031 County: COOK Township: 38N Range: 14E Section: 23 Plot Location: 1H

Well Use: IN Well Type: ASSUMED DRILLED Record Type: Construction Report,Geology,Chemical Analysis,Any other type of record

Driller: WEHLING

South IL WELLS P6671

1/4 - 1/2 Mile Higher

Well ID: 024265 Second ID: 26572

Info Source: IL Private Water Wells Survey

Owner: CHICAGO DEPT OF PUBLIC WORKS(T

Permit: Not Reported Date Drilled: 03/00/1973

Depth (in feet): 25 Aquifer Type: Unconsolidated

County Code:031County:COOKTownship:38NRange:14ESection:23Plot Location:1H

Well Use: IN Well Type: ASSUMED DRILLED Record Type: Construction Report,Geology,Indicates comment in owner's field something

unusual

Driller: Not Reported

6 NNE IL WELLS P6657

1/4 - 1/2 Mile Lower

Well ID: 029214 Second ID: Not Reported

Info Source: IL Private Water Wells Survey

Owner: WINDEMERE HOTEL CO

00/00/0000 Permit: Not Reported Date Drilled: Depth (in feet): Not Reported Aquifer Type: Not Reported 031 COOK County Code: County: Township: 38N Range: 14E

Section: 13 Plot Location: Not Reported
Well Use: Commercial Well Type: ASSUMED DRILLED

Record Type: Any other type of record

Driller: Not Reported

Map ID Direction Distance Elevation

NNE **IL WELLS** ILSG20000207338

1/4 - 1/2 Mile Lower

> Pt api number: 120312627200 Pt status: **ENG**

Pt longitude: -87.580457 Pt latitude: 41.788984 Api number: 120312627200 Longitude: -87.580457 Latitude: 41.788984

Section: 13 Twp: 38 Tdir: Ν 14 Rng:

Е Chi Bureau Eng Rdir: Farm name: Farm num: 62 Company name: Not Reported

Engineering Test 587 Status: Elevation: Ground level Total depth: 92 Elevref: Wformation: Not Reported Wfmfrom: 0 Wfmto: Pumpgpm: 0

wsw IL WELLS ILSG20000206642

1/2 - 1 Mile Higher

North

Pt api number: 120313034200 Pt status: **ENG**

Pt longitude: -87.595058 Pt latitude: 41.781409 Api number: 120313034200 Longitude: -87.595058 Latitude: 41.781409

Section: 14 Twp: 38 Tdir: Ν Rng: 14

Rdir: Ε Metr Sanitary Dist Chicag Farm name: Continental Drilling Company Farm num: C82 Company name:

Status: **Engineering Test** Elevation: 594 Elevref: Ground level Total depth: 367 Wformation: Not Reported Wfmfrom: 0 0 Wfmto: 0 Pumpgpm:

1/2 - 1 Mile Higher Org. Identifier: **USGS-IL**

USGS Illinois Water Science Center Formal name:

USGS-414728087351001 Monloc Identifier:

Monloc name: 38N14E-14.1g1

Monloc type: Well

Monloc desc: Not Reported 04040002

Huc code: Drainagearea value: Not Reported Contr b drainagearea: Not Reported Not Reported Drainagearea Units: Contr b drainagearea units: Not Reported Latitude: 41.7911453 Longitude: -87.5861596 Sourcemap scale: 24000

FED USGS

USGS40000299196

Database

EDR ID Number

Horiz Acc measure:

Horiz Collection method:

Interpolated from map

Horiz Acc measure units: minutes

US

Horiz coord refsys: NAD83 Vert measure units: feet

Vert measure val: 592 Vertacc measure val: 5

Vert accmeasure units: feet Vertcollection method: Unknown

Vert coord refsys: NGVD29

Aquifername: Not Reported Not Reported Formation type: Not Reported Aquifer type: 18920101 Construction date:

Welldepth: 1967

Welldepth units: ft

Wellholedepth: Not Reported

Countrycode:

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

10 **IL WELLS** ILSG20000207348 NE

1/2 - 1 Mile Lower

> Pt api number: 120312627100 Pt status: **ENG**

Pt longitude: -87.578028 Pt latitude: 41.78905 Api number: 120312627100 Longitude: -87.578028 Latitude: 41.78905

Section: 38 13 Twp: Tdir: Ν Rng: 14

Ε Rdir: Farm name: Chi Bureau Eng Farm num: 59 Company name: Not Reported

Status: **Engineering Test** Elevation: 588 Ground level 84 Elevref: Total depth: Not Reported 0 Wformation: Wfmfrom: Wfmto: Pumpgpm: 0

B11 WNW 1/2 - 1 Mile **IL WELLS** P6661

Higher

Well ID: 029217 Not Reported Second ID:

IL Private Water Wells Survey Info Source:

Owner: INTERNATIONAL HOTEL/DEL PRADO

Permit: Not Reported Date Drilled: 00/00/0000 Depth (in feet): 300 Aquifer Type: Not Reported County Code: 031 County: COOK 38N Township: Range: 14E

Section: 14 Plot Location: Not Reported ASSUMED DRILLED Well Use: Commercial Well Type:

Any other type of record Record Type:

Driller: Not Reported

B12 WNW 1/2 - 1 Mile Higher

IL WELLS P6658

Well ID: 023851 Second ID: Not Reported

Info Source: IL Private Water Wells Survey

Owner: CONSUMERS CO

Date Drilled: 00/00/1892 Permit: Not Reported Depth (in feet): 2000 Aquifer Type: Bedrock COOK County Code: 031 County: Township: 38N Range: 14E

 Section:
 14
 Plot Location:
 Not Reported

 Well Use:
 IN
 Well Type:
 ASSUMED DRILLED

Record Type: Any other type of record

Driller: J P MILLER

B13 WNW IL WELLS P6659

1/2 - 1 Mile Higher

Well ID: 029215 Second ID: Not Reported

Info Source: IL Private Water Wells Survey

Owner: CONSUMERS CO
Permit: Not Reported Date Drilled: 00/00/1914
Depth (in feet): 1967 Aquifer Type: Bedrock
County Code: 031 County: COOK

Township:38NRange:14ESection:14Plot Location:Not ReportedWell Use:INWell Type:ASSUMED DRILLED

Record Type: Chemical Analysis
Driller: Not Reported

B14 WNW IL WELLS P6660

1/2 - 1 Mile Higher

Well ID: 029216 Second ID: Not Reported

Info Source: IL Private Water Wells Survey
Owner: ELITE GARAGE

Permit: Not Reported Date Drilled: 00/00/0000 Depth (in feet): 40 Aquifer Type: Not Reported 031 COOK County Code: County: Township: 38N Range: 14E

Section: 14 Plot Location: Not Reported
Well Use: Commercial Well Type: ASSUMED DRILLED

Record Type: Any other type of record

Driller: Not Reported

15 NNE IL WELLS ILSG20000207654 1/2 - 1 Mile

Pt api number: 120312627000 Pt status: ENG

Pt longitude: -87.580436
Pt latitude: 41.792611
Api number: 120312627000
Longitude: -87.580436
Latitude: 41.792611

 Section:
 13
 Twp:
 38

 Tdir:
 N
 Rng:
 14

Rdir: E Farm name: Chi Bureau Eng Farm num: 52 Company name: Not Reported

Status:Engineering TestElevation:585Elevref:Ground levelTotal depth:104Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

16 NNE IL WELLS ILSG20000207717

1/2 - 1 Mile Lower

Pt api number: 120312867400 Pt status: ENG

Pt longitude: -87.579092
Pt latitude: 41.793313
Api number: 120312867400
Longitude: -87.579092
Latitude: 41.793313

 Section:
 13
 Twp:
 38

 Tdir:
 N
 Rng:
 14

Rdir: E Farm name: 57 Dr. Br/Lk Shore Dr. Farm num: 2 Company name: IL Dept. of Transportation

Status:Engineering TestElevation:0Elevref:Not ReportedTotal depth:27Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

17 SSW IL WELLS P6670

1/2 - 1 Mile Higher

Well ID: 029221 Second ID: Not Reported

Info Source: IL Private Water Wells Survey

Owner: WOODLAWN LAUNDRY

Permit: Not Reported Date Drilled: 00/00/1905 Depth (in feet): 350 Aquifer Type: Bedrock County Code: 031 County: COOK 38N Township: Range: 14E

Section: 23 Plot Location: Not Reported
Well Use: Commercial Well Type: ASSUMED DRILLED

Record Type: Any other type of record

Driller: Not Reported

NNE 1/2 - 1 Mile Lower

IL WELLS ILSG20000207776

Pt api number: 120312656800 Pt status: ENG

Pt longitude: -87.577877
Pt latitude: 41.794215
Api number: 120312656800
Longitude: -87.577877
Latitude: 41.794215

 Section:
 13
 Twp:
 38

 Tdir:
 N
 Rng:
 14

Rdir: E Farm name: 57Th St Beachwall
Farm num: 1 Company name: Chicago Pub. Works Dept.

Status:Engineering TestElevation:0Elevref:Not ReportedTotal depth:93Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

19 WNW IL WELLS ILSG20000207159

1/2 - 1 Mile Higher

Pt api number: 120313594500 Pt status: MONIT

Pt longitude: -87.602417
Pt latitude: 41.786777
Api number: 120313594500
Longitude: -87.602417
Latitude: 41.786777

 Section:
 14
 Twp:
 38

 Tdir:
 N
 Rng:
 14

Rdir: E Farm name: Coach USA

Farm num: MW-8 Company name: Transhield Underground Service

Status:Water Well Monitoring WellElevation:0Elevref:Not ReportedTotal depth:14Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

20 NNE IL WELLS ILSG20000208002

1/2 - 1 Mile Higher

Pt api number: 120312626800 Pt status: ENG

Pt longitude: -87.578033
Pt latitude: 41.796298
Api number: 120312626800
Longitude: -87.578033
Latitude: 41.796298

 Section:
 12
 Twp:
 38

 Tdir:
 N
 Rng:
 14

 Direction:
 Total Control of the Control o

Rdir: E Farm name: Chi Bureau Eng Farm num: 45 Company name: Not Reported

Status:Engineering TestElevation:591Elevref:Ground levelTotal depth:113Wformation:Not ReportedWfmfrom:0Wfmto:0Pumpgpm:0

AREA RADON INFORMATION

Federal EPA Radon Zone for COOK County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for COOK COUNTY, IL

Number of sites tested: 82

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.273 pCi/L	96%	4%	0%
Living Area - 2nd Floor	0.900 pCi/L	100%	0%	0%
Basement	1.740 pCi/L	93%	7%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5 Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Be kman Map. USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after

August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Records

Source: Illinois Geological Survey Telephone: 217-333-4747

Illinois Private Well Database and PICS (Public, Industrial, Commercial Survey)

Source: Illinois State Water Survey

Telephone: 217-333-9043

Water Well Location Information

Source: Illinois Environmental Protection Agency

Telephone: 217-782-0810

OTHER STATE DATABASE INFORMATION

RADON

State Database: IL Radon

Source: Department of Nuclear Safety

Telephone: 217-785-9958 County Radon Results

Area Radon Information Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

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PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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EXECUTIVE SUMMARY

Sam Schwartz Engineering, DPC (SSE) conducted a traffic impact study for the proposed University of Chicago Woodlawn – Jackson Park site for the Barack Obama Presidential Library (OPL). Existing and future conditions in the study area have been described, analyzed, and evaluated with respect to transportation operations and the impact of the proposed development.

The location of the OPL Woodlawn site is easy to access for all visitors and staff. It is located adjacent to Lake Shore Drive, approximately 2.25 miles from the Dan Ryan Expressway (Dan Ryan), and adjacent to the Metra Electric Line.

The study analyzed the following major intersections within the proximity of the site:

- 57th Street/Lake Shore Drive
- Midway Plaisance/Cornell Avenue
- 63rd Street/Dan Ryan On and Off Ramps
- 63rd Street/Stony Island Avenue
- Hayes Drive/Cornell Avenue
- 65th Place/Cornell Avenue/Stony Island Avenue

63rd Street (74' right-of-way) and Stony Island Avenue (66' right-of-way) both provide one lane of travel in each direction, in the vicinity of the site, and on-street parking. Stony Island Avenue widens to a 200' right-of-way further to the south and provides up to four lanes of travel in each direction. Both have significant vehicular capacity on 63rd Street and Stony Island Avenue; traffic currently moves along both streets without much delay and additional traffic generated by the OPL can be accommodated without adding significant delay to any of the study intersections. Overall, vehicles will be able to easily access the site and the OPL will not have a significant impact on the traffic operations in the neighborhoods.

The following details the recommendations for parking, access, and improvements to the safety and operations of multi-modal access.

- The intersection of Cornell Avenue (OPL Access) and Hayes Drive provides an ideal access point for vehicular traffic. Under this scenario, the OPL Access should be terminated before it reaches Midway Plaisance. The new design of the OPL Access should provide one lane of travel in each direction and be 24 feet in width. Cornell Avenue is currently used as a bypass of Lake Shore Drive for local traffic and does not fit within the Chicago grid. It has moderately low traffic volumes and very high speeds. Vacating Cornell Avenue will not only potentially reduce the amount of asphalt within Jackson Park, but it will also significantly improve the safety within Jackson Park.
- With the closure of Cornell Avenue south of Midway Plaisance eastbound, Cornell Avenue should become one-way northbound between the Midway Plaisance eastbound and westbound intersections and the traffic control signal removed at the Midway Plaisance

eastbound intersection. This will reduce the amount of pavement within Jackson Park and provide safety improvements. The closure of Cornell Avenue would also necessitate the removal of the traffic control signal and geometric modifications at Stony Island Avenue/65th Place.

- Minor traffic signal timing/phasing modifications should be implemented at the study area intersections, as appropriate, to provide optimal operations and to facilitate traffic to and from the OPL.
- Prohibiting access on Stony Island Avenue will allow for an excellent pedestrian experience along the corridor and improve operations of through traffic on Stony Island Avenue.
- Service access and secure access can be provided from Stony Island Avenue or Cornell Avenue.
- It is estimated that the site will generate a peak parking demand of 444 vehicular parking spaces on the 30th most popular day (typical design day). It is recommended that all parking be provided within the site.
- There are a number of options to accommodate any overflow parking for special events, including the Museum of Science and Industry, surface lots owned by the University of Chicago in the area, and the Apostolic Church of God. There is also on-street parking in the area.
- It is estimated that the site will generate a peak bus demand of 5 buses on the 30th most popular day (typical design day). It is recommended that buses be staged on one of the surface lots owned by the University of Chicago in the area or the Apostolic Church of God.
- A staff member should be given the responsibility of coordinating all transportation, particularly for special events.
- The 59th Street Metra station should be renamed 59th Street Obama Library. The station should be improved as a front door to the library, similar to the Metra Electric stations located to the north serving the Hyde Park neighborhood and the University of Chicago. Wayfinding should be provided to guide visitors to the site.
- The streets within the park were originally designed to allow horse and buggies to easily traverse through them. This design provided excess space for modern vehicles, which has led to vehicles using these streets to speed through the park. The following are the recommended geometrics for each internal street:
 - Richards Drive, between Marquette Drive and Hayes Drive: Reduce lane width to 10.5 feet and provide parking on both sides of the street. This would reduce the street by 5 feet in width and remove approximately 0.15 acres of asphalt. The "ramps" to Richards Drive from Marquette Drive should be removed and a standard T-intersection should be installed.

- Marquette Drive, between Stony Island Avenue and South Shore Drive: Reduce lane width to 10.5 feet and provide parking on both sides of the street. This would reduce the street by 5 feet in width and remove approximately 0.35 acres of asphalt.
- Hayes Drive, between OPL Access and South Shore Drive: Reduce lane width to 10.5 feet and provide parking on both sides of the street. This would reduce the street by 13 feet in width and remove approximately 0.80 acres of asphalt. The intersection of Hayes Drive and Richards Drive should be converted to a standard roundabout.
- Consideration should be given to developing a streetscape for 63rd Street between the Cottage Grove Avenue and the OPL.
- The intersection of 60th Street /Stony Island Avenue should be modified to provide more safety and priority for pedestrians. This includes reducing the turning radii on Stony Island Avenue, providing ADA-compliant curb ramps, bumpouts, and leading pedestrian intervals.
- The Lakefront Trail is the crown jewel of Chicago's bicycle network. It is recommended that a shared use path be designated within Jackson Park that connects the Lakefront Trail to the OPL. This should connect to the future bicycle facility on Stony Island Avenue.

INTRODUCTION

Sam Schwartz Engineering, DPC (SSE) was retained by the University of Chicago to conduct a traffic impact study for the proposed Woodlawn site for the Barack Obama Presidential Library (OPL). The subject site is located at the western edge of Jackson Park and extends from Midway Plaisance (eastbound) to 63rd Street between Stony Island Avenue and Cornell Avenue. The Woodlawn site location is illustrated on *Figure 1*.

The following report presents and documents SSE's methodology, data collection, analyses, and identifies improvements, as necessary, to mitigate impacts the development's traffic may have on the adjacent roadway network.

As proposed, the project consists of the construction of the Library building and parking facilities as well as other improvements to facilitate access. Access to the development will be provided via Cornell Avenue.

The purpose of this study is to fulfill the criteria for accessibility, circulation and parking set forth by the Barack Obama Foundation. The objectives of the study are as follows:

- Analyze the existing traffic, parking and multi-modal operations in the study area.
- Estimate the new traffic generated by the proposed Presidential Library.
- Analyze the future traffic, parking and multi-modal operations in the study area.
- Analyze the future site access and circulation.
- Provide mitigation strategies and recommendations related to traffic, parking and multi-modal operations, site access and circulations, as well as to the management of traffic during construction.

The study area, with the study intersections identified, is shown on *Figure 2*.

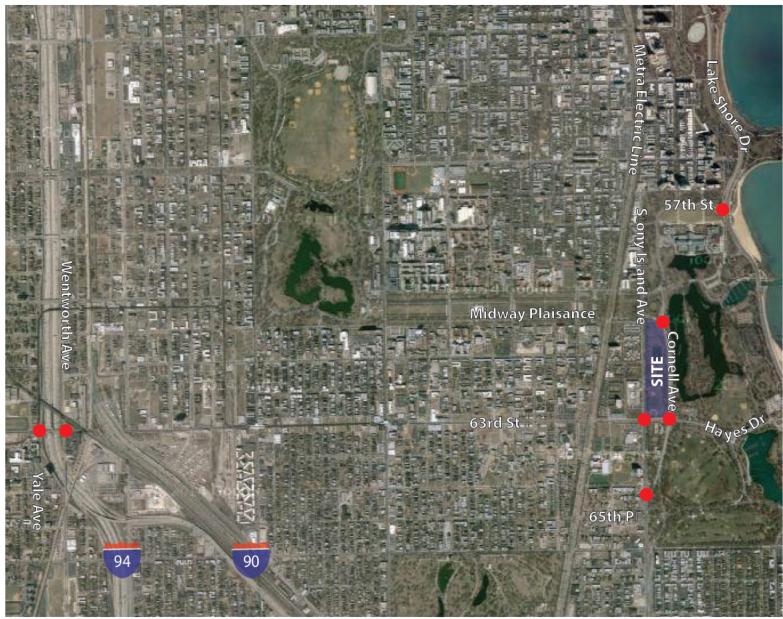




Sam Schwartz Engineering D.P.G.

Figure 1
Site Location Map





Sam Schwartz Engineering D.P.C.

Figure 2
Study Intersections Map

= Study Intersection

EXISTING CONDITIONS

This section of the study provides a description of the OPL Woodlawn site, the adjacent land uses, a summary of the data collection process and an analysis of the existing transportation conditions.

Site Location

The Woodlawn site is located along the western edge of Jackson Park and extends from Midway Plaisance (eastbound) to 63rd Street between Stony Island Avenue and Cornell Avenue. It is located between two stops on the Metra Electric Line and is also easily accessible by automobile via Lake Shore Drive, the Chicago Skyway, and the Day Ryan Expressway.

The site is owned and managed by the Chicago Park District and currently contains several recreational fields. To optimize traffic operations, it was assumed that access to the Woodlawn site would be via the intersection of Cornell Avenue (OPL Access) and Hayes Drive, with Cornell Avenue being vacated between Midway Plaisance (eastbound) and Stony Island Avenue.

Proposed Presidential Library Use and Operation

The Barack Obama Presidential Library will serve as a repository of the historical documents related to Barack Obama, the 44th President of the United States of America. The program elements which will most likely generate most of the public access include exhibits, displays, and souvenir shops. The building footprint is estimated at approximately 200,000 square feet. It is anticipated the typical hours of operation will be between 9:00 AM and 5:00 PM and the OPL will be closed on major holidays such as Thanksgiving, Christmas, and New Year's Day. An estimated 800,000 visitors will come to the OPL each year, of which approximately 350,000 are expected to be from outside the Chicagoland area.

Area Land Use

The Woodlawn site is mainly surrounded by other parts of Jackson Park, which includes an 18-hole golf course. The exception is to the west of the site, where the South Side YMCA, the Hyde Park Academy High School, and residential uses are located, as well as a few vacant parcels.

Existing Area Roadway System

Unless otherwise noted, all streets described below are under the jurisdiction of the Chicago Department of Transportation (CDOT). Roads are described in the study area from west to east, then from north to south.

63rd Street is an east-west, two-lane, minor arterial roadway, with on-street parking provided on both sides of the road in the vicinity of the site. At its signalized intersection with Yale Avenue (Dan Ryan Eastbound On and Off Ramps), 63rd Street provides two through lanes with shared turning movements in both directions. The Yale Street/Dan Ryan Eastbound Off-Ramp provides three through lanes with shared turning movements, providing one-way travel in the southbound direction.

At its signalized intersection with Wentworth Avenue (Dan Ryan Westbound On Ramp), 63rd Street provides a left-turn lane and two through lanes in the eastbound direction and a through and shared through/right-turn lane in the westbound direction. The Wentworth Avenue northbound approach provides a left-turn, through, and shared through/right-turn lane, providing one-way travel in the northbound direction.

The 63rd Street eastbound and westbound approaches at its signalized intersection with Stony Island Avenue each provide a left-turn, through, and right-turn lane. At its signalized intersection with Cornell Avenue, the 63rd Street eastbound and westbound approaches each provide two lanes with shared turning maneuvers.

Stony Island Avenue is a two-lane, minor arterial roadway, with on-street parking provided on both sides of the street in the site vicinity. At its signalized intersection with 63rd Street, Stony Island Avenue provides a left-turn, a through, and a shared through/right-turn lane in both directions. At its signalized intersection with Cornell Avenue/65th Place, Stony Island Avenue provides three through lanes and a shared through/right-turn lane in the southbound direction and a shared through/left-turn lane and a through lane in the northbound direction. Cornell Avenue and 65th Place are one-way in the westbound direction at their intersection with Stony Island Avenue. Stony Island Avenue is under the jurisdiction of CDOT north of Cornell Avenue/65th Place and the Illinois Department of Transportation (IDOT) to the south. It is designated as a Strategic Regional Arterial (SRA). The SRA designation controls roadway access and signal installation so as to facilitate efficient and safe transportation.

Cornell Avenue is a six-lane, median divided principal arterial roadway, adjacent to the site, with on-street parking. Cornell Avenue is currently used as a bypass of Lake Shore Drive for local traffic. At its signalized intersection with Stony Island Avenue/65th Place, Cornell Avenue provides three lanes with shared turning movements in the westbound direction. At its signalized intersection with Midway Plaisance eastbound, Cornell Avenue provides two through lanes in the northbound direction and three through lanes in the southbound direction. Cornell Avenue becomes 57th Street north of Midway Plaisance, approximately 1/3-mile west of Lake Shore Drive. At its signalized intersection with Lake Shore Drive, 57th Street provides three left-turn lanes and a right-turn lane in the eastbound direction. Cornell Avenue/57th Street is under the jurisdiction of IDOT and is designated as an SRA.

Midway Plaisance is a linear park with one-way couplets (eastbound on the south and westbound on the north) running along the outside of the park and serves as a green connection between Lake Michigan and Jackson Park to the east and Washington Park to the west. Midway Plaisance is a principal arterial roadway, providing two travel lanes in each direction and on-street parking on both sides of the street. At its signalized intersection with Cornell Avenue, Midway Plaisance eastbound provides dual left- and dual right-turn lanes.

Lake Shore Drive (US Route 41) is a six-lane, divided principal arterial roadway, designated as a SRA to the north of 57th Street. South of 57th Street, Lake Shore Drive provides three through lanes

in the northbound direction and two through lanes in the southbound direction and is classified as a minor arterial. On-street parking is prohibited along Lake Shore Drive within the study area. At its signalized intersection with 57th Street, Lake Shore Drive provides a left-turn lane and three through lanes in the northbound direction and two through lanes and a right-turn lane in the southbound direction. Left-turn movements are prohibited from northbound Lake Shore Drive onto westbound 57th Street from 3 to 7 PM, Monday through Friday. Lake Shore Drive is under the jurisdiction of IDOT.

Pedestrian/Bike Facilities

Sidewalks are provided along all study roadways on both sides of the street, with the exception of the roadways abutting Jackson Park, where multi-purpose off-street paths are provided, as well as along Lake Shore Drive – the Lakefront Trail. Crosswalks with pedestrian countdown signals are maintained along all four legs of the 63rd Street intersections with Stony Island Avenue and Cornell Avenue/Hayes Drive. Crosswalks are provided on the west, north, and south legs of the 63rd Street and Yale Avenue (Dan Ryan eastbound ramps) intersection; the north, south, and east legs of the 63rd Street and Wentworth Avenue (Dan Ryan westbound on ramp); the south and west legs of the Cornell Avenue and Midway Plaisance eastbound intersection; and the west, north, and east legs of the Stony Island Avenue at Cornell Avenue and 65th Place intersection.

The 18-mile Lakefront Trail for bicycles runs along the north side of 71st/E South Shore Drive, along the east side of South Shore Drive, and along the north side of Marquette Drive. An on-street bike route is planned along Stony Island Avenue south of 67th Street and north of 63rd Street. Divvy docking stations are provided at the 55th/56th/57th Street Metra Electric Line station, approximately ½-mile north of the site, and at Ellis Avenue and 58th Street, approximately 1 mile west of the site.

Existing Transit Service

The proposed site is well served by public transportation. The Chicago Transit Authority (CTA) operates multiple existing bus routes in the vicinity of the proposed Woodlawn site, as listed below:

- #2 Hyde Park Express
- #6 Jackson Park Express
- #15 Jeffery Local
- #26 South Shore Express
- #28 Stony Island
- $#59 59^{th} / 61^{st}$
- #63 − 63rd
- #170 U. of Chicago / Midway
- #171 U. of Chicago / Hyde Park
- #172 U. of Chicago / Kenwood

The Metra Electric South Shore Line is easily accessible to the Woodlawn site, with stations provided within two to three blocks (less than 0.2 of a mile) to the west of the site at 63rd Street and at 59th Street. In addition, CTA rail service is easily accessible via bus or a short bicycle ride at 63rd Street

and Cottage Grove Avenue (Green Line), approximately 1 mile to the west of the site, and at 63rd Street and the Dan Ryan Expressway (Red Line) approximately 2.2 miles to the west of the site.

Existing Traffic Volumes

Existing traffic volumes were determined by manual traffic counts conducted in October 2014 during the weekday and Saturday midday peak periods (10:00 AM to 2:00 PM) at the following intersections:

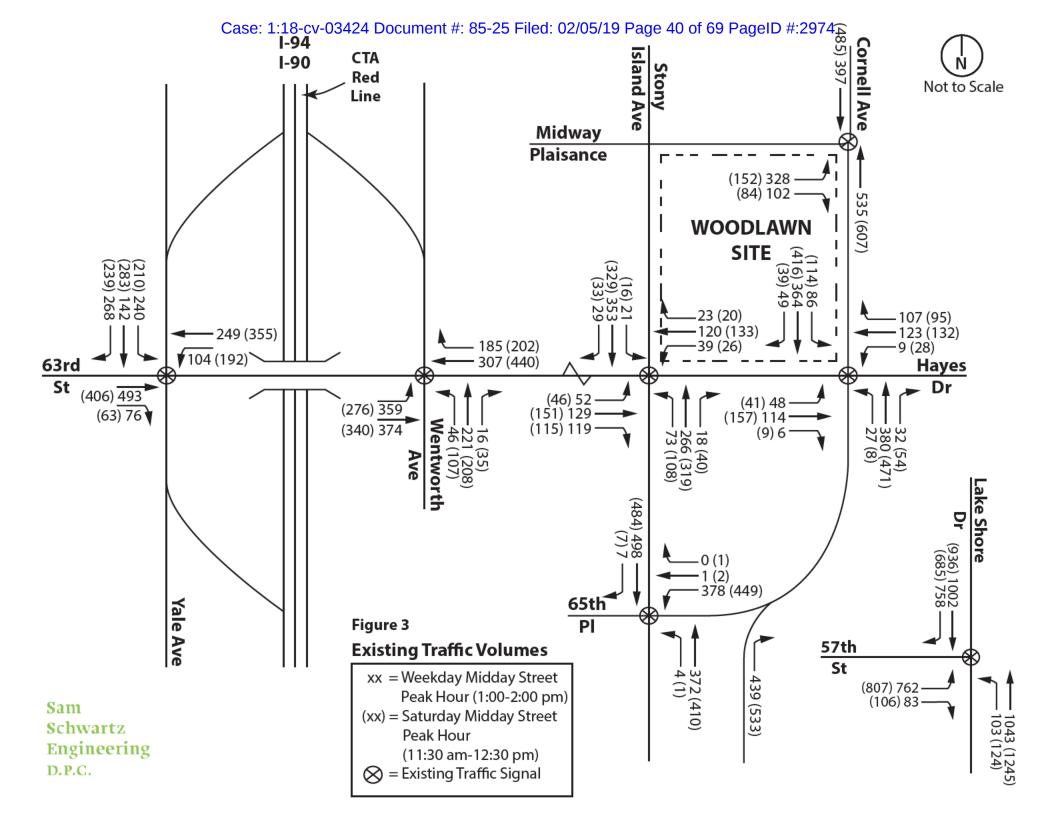
- 57th Street/Lake Shore Drive
- Midway Plaisance eastbound/Cornell Avenue
- 63rd Street/Dan Ryan On and Off Ramps
- 63rd Street/Stony Island Avenue
- Hayes Drive/Cornell Avenue
- 65th Place/Cornell Avenue/Stony Island Avenue

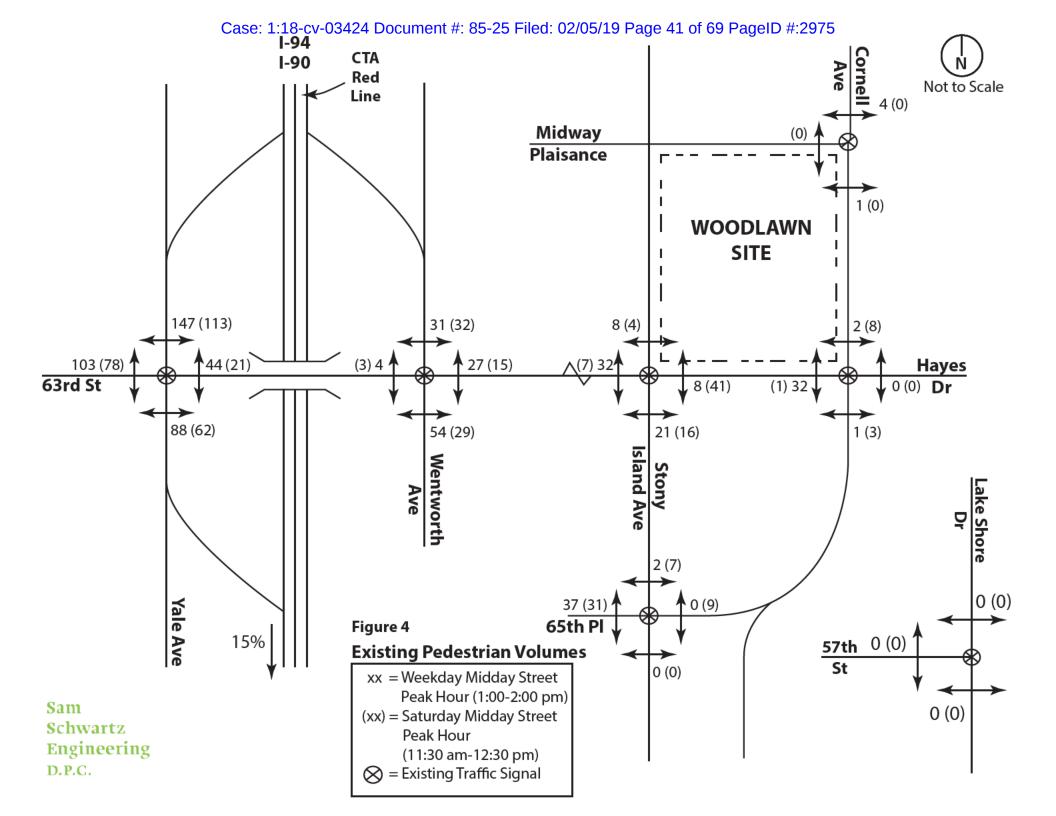
Intersection traffic counts include measuring the auto and bicycle traffic passing through each intersection as well as the number of pedestrians crossing each intersection approach in order to best represent existing operations. The weekday afternoon and Saturday peak periods were chosen since they coincide with the anticipated peak periods of the surrounding roadway system and the proposed development. The results indicate that the peak hour of existing traffic during the weekday midday peak occurred from 1:00 to 2:00 PM and the Saturday midday peak occurred from 11:30 AM to 12:30 PM. It should be noted that typical peak hours of traffic on the surrounding roadways, generated by residential, institutional, and retail uses, are considerably higher than, and do not coincide with, the hours representing the OPL's peak hours.

Based on traffic count data retrieved from the IDOT website, the average daily traffic in the vicinity of the development is:

- 9,000 vehicles on 63rd Street (year 2010)
- 5,100 vehicles on Midway Plaisance eastbound (year 2010)
- 19,400 vehicles on Cornell Avenue (year 2010)
- 5,500 vehicles on Hayes (year 2010)

The existing peak hour vehicle volumes are illustrated on *Figure 3*. *Figure 4* depicts the pedestrian and bicycle volumes.





Existing Operations

The effectiveness of an intersection's operation is measured in terms of Level of Service (LOS), which is assigned a letter from A to F based on the average total delay experienced by each vehicle passing through an intersection. LOS A is the highest, representing the least delay, LOS E represents saturated or at-capacity conditions, and LOS F represents oversaturated conditions. The minimum intersection LOS that is generally accepted by industry standards is LOS D.

An intersection capacity analysis was conducted to analyze the intersections for the weekday and Saturday midday peak hours using the methodologies outlined in the *Highway Capacity Manual (HCM)*¹, using Synchro software for the analysis. The existing timings at the intersections were obtained from the Chicago Department of Transportation. The results in *Table 1* show that all approaches at the study intersections operate at acceptable levels of services, at LOS C, or better.

Table 1: Existing Intersection Level-of-Service

latarra ati ar (Daala Harry) arra		ay Midday	Saturday Midday		
Intersection/Peak Hour/Lane		k Hour LOS ^B	Peak Hour		
cord co	Delay A	LUS	Delay	LOS	
63 rd St at Yale Ave/Dan Ryan Ramps	04.0	•	00.0	•	
63 rd St EB approach	34.9	C	32.6	C	
63 rd St WB approach	8.8	A	15.3	В	
Yale Ave/Dan Ryan SB approach	12.9	В	13.8	В	
Overall Intersection	19.9	В	19.3	В	
63 rd St at Wentworth Ave/Dan Ryan Ramps		_		_	
63 rd St EB approach	25.5	С	27.8	С	
63 rd St WB approach	25.4	С	29.5	С	
Wentworth Ave NB approach	14.7	В	15.0	В	
Overall Intersection	23.4	С	25.7	С	
63 rd St at Stony Island Ave/Hayes Dr					
63 rd St EB approach	28.5	С	28.5	С	
Hayes Dr WB approach	19.3	В	15.5	В	
Stony Island Ave NB approach	1.6	Α	2.2	Α	
Stony Island Ave SB approach	9.3	Α	9.1	Α	
Overall Intersection	13.2	В	12.1	В	
Hayes Dr at Cornell Ave					
Hayes Dr EB approach	16.1	В	15.6	В	
Hayes Dr WB approach	27.4	С	28.1	С	
Cornell Ave NB approach	12.6	В	12.8	В	
Cornell Ave SB approach	8.1	Α	8.2	Α	
Overall Intersection	14.0	В	14.0	В	
Stony Island Ave at Cornell Ave/65 th PI					
Stony Island Ave NB approach	23.5	С	23.9	С	
Stony Island Ave SB approach	32.3	C	32.3	C	
Cornell Ave WB approach	4.1	A	3.7	Ā	
Overall Intersection	21.2	С	20.2	С	
Midway Plaisance (EB) at Cornell Ave					
Midway Plaisance EB approach	31.6	С	29.6	С	
Cornell Ave NB approach	4.6	Ä	3.8	Ā	
Cornell Ave SB approach	7.6	Α	7.8	Α	
Overall Intersection	14.0	В	9.8	Α	

¹Highway Capacity Manual, Transportation Research Board, National Research Council, Washington, D.C., 2010.

57 th St at Lake Shore Dr				
57 th St EB approach	27.4	С	27.8	С
Lake Shore Dr NB approach	14.2	В	15.1	В
Lake Shore Dr SB approach	17.3	В	16.6	В
Overall Intersection	18.6	В	18.7	В

Average control delay in seconds per vehicle.

B Level of service.

FUTURE TRAFFIC CHARACTERISTICS

This section of the report presents the traffic characteristics associated with the OPL Woodlawn site and evaluates the impact of future traffic on the area street system. This includes discussions regarding site development plans, site-generated traffic volumes and their distributions on the surrounding roadway network. Site access, site traffic assignment and future traffic volumes will also be discussed.

Traffic Growth

Construction and occupancy of the proposed OPL is currently expected to occur in seven years, by the year 2021. It is anticipated that this development would stimulate the redevelopment of the Woodlawn community, in particular along the 63rd Street and Stony Island Avenue corridors. Accordingly, in order to account for the general traffic growth associated with new development in the surrounding area as the proposed development is constructed, SSE applied an annual, compounded growth rate of 2% to existing traffic volumes along the 63rd Street and Stony Island Avenue corridors and 0.5% to the remaining study area roadways.

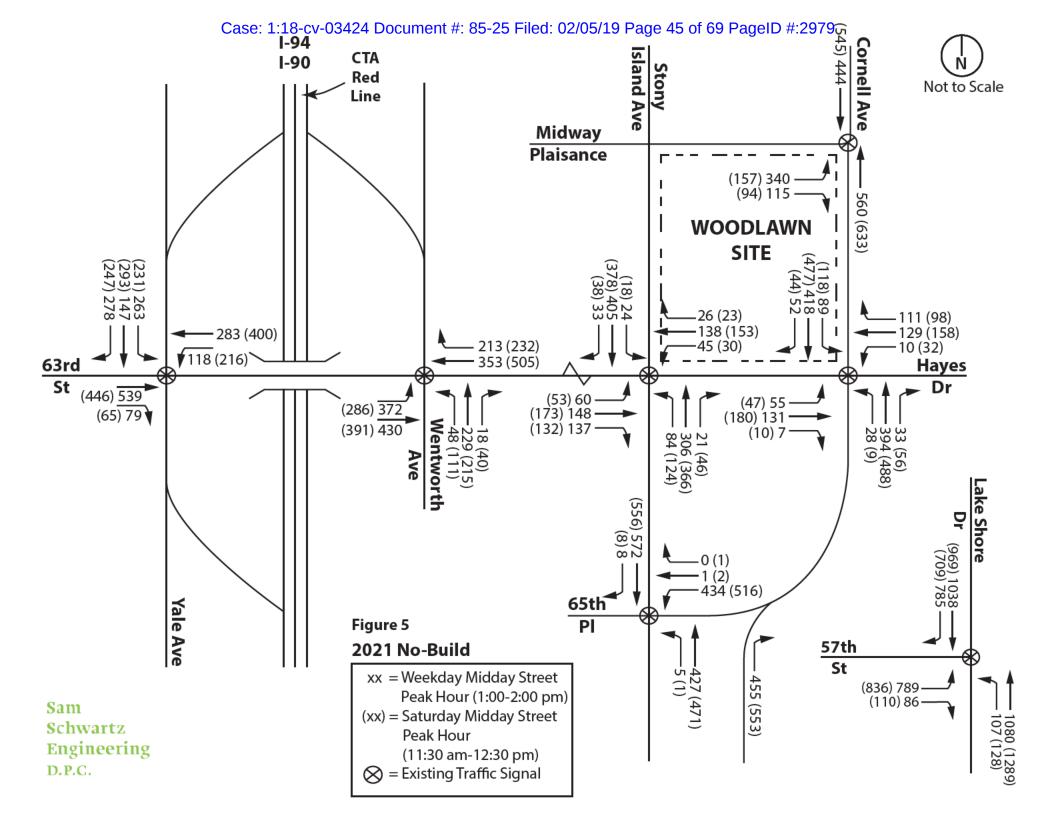
2021 No-Build Conditions (without OPL)

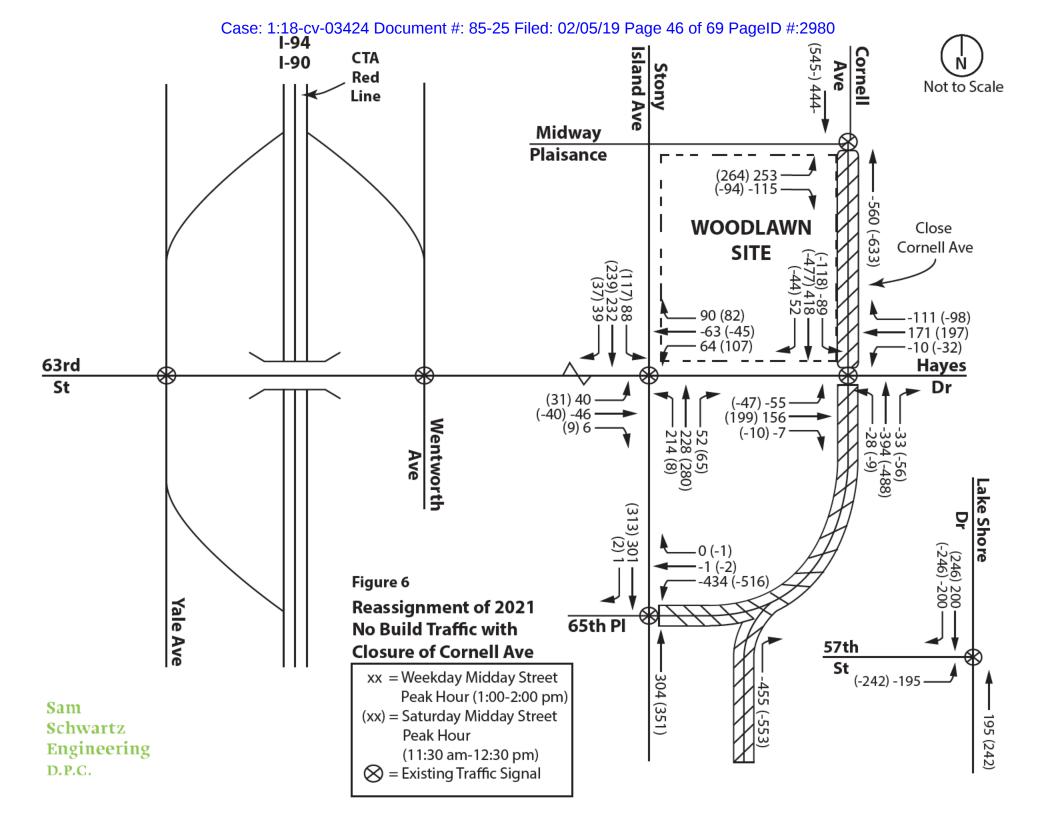
The 2021 No-Build peak hour traffic volumes were developed by applying the base 0.5 to 2 percent annual growth rate (approximately 3.6 to 14.9 percent over 7 years) to the existing traffic (Figure 3). The 2021 No-Build traffic-flow networks are graphically depicted on *Figure 5*.

Proposed Development Plan

The proposed development plan includes the construction of the Barack Obama Presidential Library. The building footprint is estimated at approximately 200,000 square feet. Its anticipated typical hours of operation are between 9:00 AM and 5:00 PM and closed on major holidays such as Thanksgiving, Christmas, and New Year's Day. It is estimated that 800,000 visitors will come to the OPL each year, of which, approximately 350,000 are expected to be from outside the Chicagoland area. It is anticipated to be served by a minimum of 444 vehicular parking spaces on site. It will provide a dedicated bus area for drop-off/pick-up operations and storage for a minimum of 5 buses.

Access to the Woodlawn site is anticipated via the intersection of Cornell Avenue (OPL Access) and Hayes Drive. Cornell Avenue will be vacated from Midway Plaisance (eastbound) to the north to Stony Island Avenue to the south. Vacating Cornell Avenue will not only potentially reduce the amount of asphalt within Jackson Park, but it will also significantly improve the safety within Jackson Park. The reassignment of 2021 No-Build traffic associated with the closure of Cornell Avenue is shown on *Figure 6*.





Site Access

With the location of the Woodlawn site in close proximity to major roadways (Lake Shore Drive, Dan Ryan Expressway, and the Chicago Skyway), as well as to the Museum of Science and Industry, the University of Chicago Campus, Chicago's lakefront, other cultural attractions, and public transportation, OPL visitors will use a variety of modes of transportation to access the site. All visitors arriving by automobile (personal or taxi) will enter and exit the site via the proposed OPL Access onto Hayes Drive, in the location of the vacated Cornell Avenue. Buses associated with student or other organized groups are planned to pick up and drop off OPL visitors using a dedicated bus area as close to the site as possible either within Jackson Park or curbside along Stony Island Avenue.

Public transportation options such as the Metra Electric South Shore Line, CTA bus, and CTA rail provide access to the Woodlawn site. Metra Electric Line stations are located within two to three blocks of the site at 63rd Street and at 59th Street. CTA bus routes operate along Midway Plaisance, 63rd Street, and Stony Island Avenue in close proximity to the site. CTA rail stations are located approximately 1 mile west of the site at 63rd Street and Cottage Grove Avenue (Green Line) and approximately 2.2 miles west of the site at 63rd Street and the Dan Ryan Expressway (Red Line).

Based on data from other museums in the City of Chicago, travel time data, and availability of public transportation to the Woodlawn site, the mode of transportation distribution assumed for visitors to and from the proposed site is summarized in *Table 2*.

Table 2: Mode of Transportation

Table 2. Wode of Hallsportation					
Mode	Percentage				
Car	55%				
Walk	10%				
Taxi	10%				
Transit	15%				
Tour / School Bus	9%				
Bike	1%				
Total	100%				

Trip Generation

The amount of traffic generated by a development depends on the type and density of the land use being proposed. SSE estimated the trip generation for the proposed OPL based on visitor estimates provided by the University of Chicago, mode of transportation data in the site vicinity, and data from other museums in the City of Chicago and New York City.

SSE used the following assumptions to develop the trip generation for the OPL Woodlawn site:

- 800,000 visitors
- Approximately 4,919 visitors would arrive on the 30th day (design day)
- Approximately 8,694 visitors would arrive on the peak day
- 55% of the visitors would travel by car
- 10% of the visitors would arrive by taxi
- 9% of the visitors would arrive via a tour/school bus
- The average automobile occupancy would be 2.56 persons per vehicle
- The average bus occupancy would be 41 persons
- The average visitor time would be 2.5 hours

Table 3 presents the estimated trip generation for the proposed Woodlawn site.

Table 3: Estimated Trip Generation

Vehicle	Weekday / Saturday Midday Peak Hour			
	In	Out	Total	
Automobile (Car/Taxi)	225	219	444	
Bus	2	2	4	
Total Development	227	221	448	

As shown in Table 3, during the weekday and Saturday midday peak hours, the development is expected to generate approximately 448 new vehicle trips (227 entering and 221 exiting).

Directional Distribution

The directional distribution of the site-generated traffic is a function of several variables, including the proposed land use, the adjacent roadway network and access, information from the University of Chicago, and engineering judgment. Accordingly, the anticipated origin and destination of the OPL visitors is summarized in *Table 4*.

Table 4: Visitor Origin / Destination

Origin / Destination	Percentage		
North Side (Chicago)	8%		
Near West Side (Chicago)	4%		
Central (Chicago)	30%		
South Side (Chicago)	8%		
Other (Chicago)	15%		
Outside Chicago City Limits	35%		
Total	100%		

The resulting expected directional distribution of site traffic for the proposed Woodlawn site is illustrated on *Figure 7*.

Site Traffic Assignment

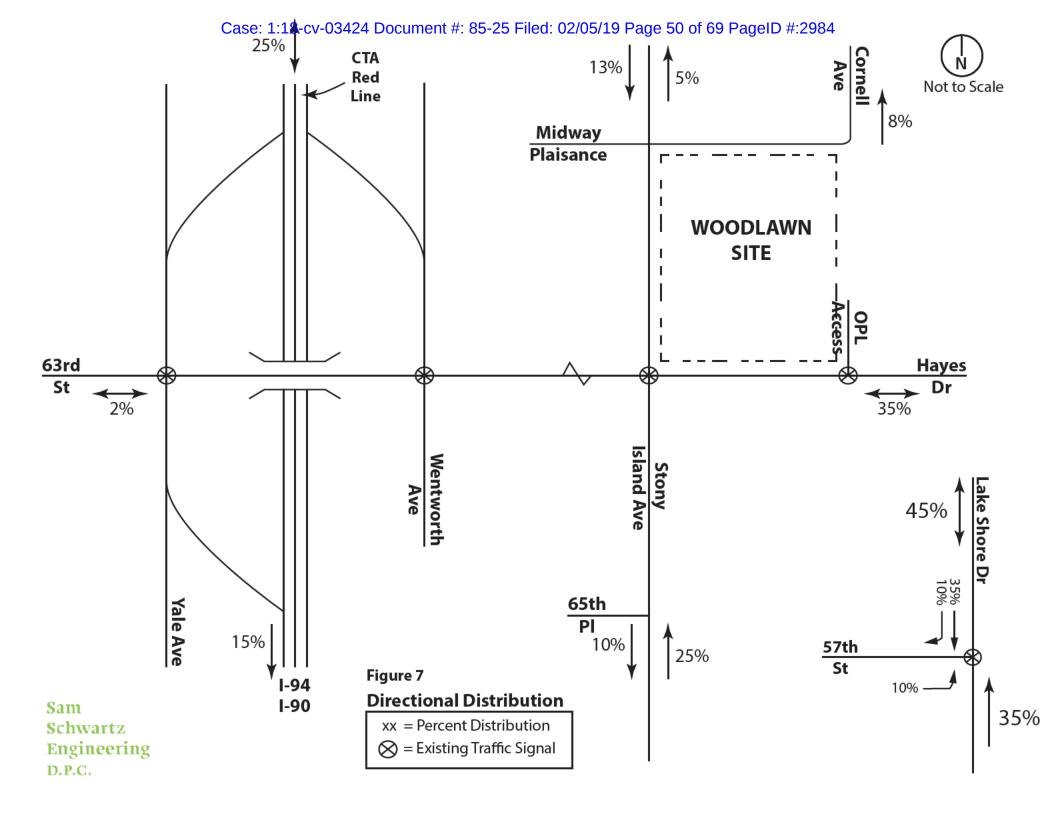
Based on the direction of travel, the site-generated trips were assigned to the roadway network by utilizing the site estimated trips listed in Table 3 and the anticipated directional distribution outlined on Figure 7. The site traffic assignment is illustrated on *Figure 8*.

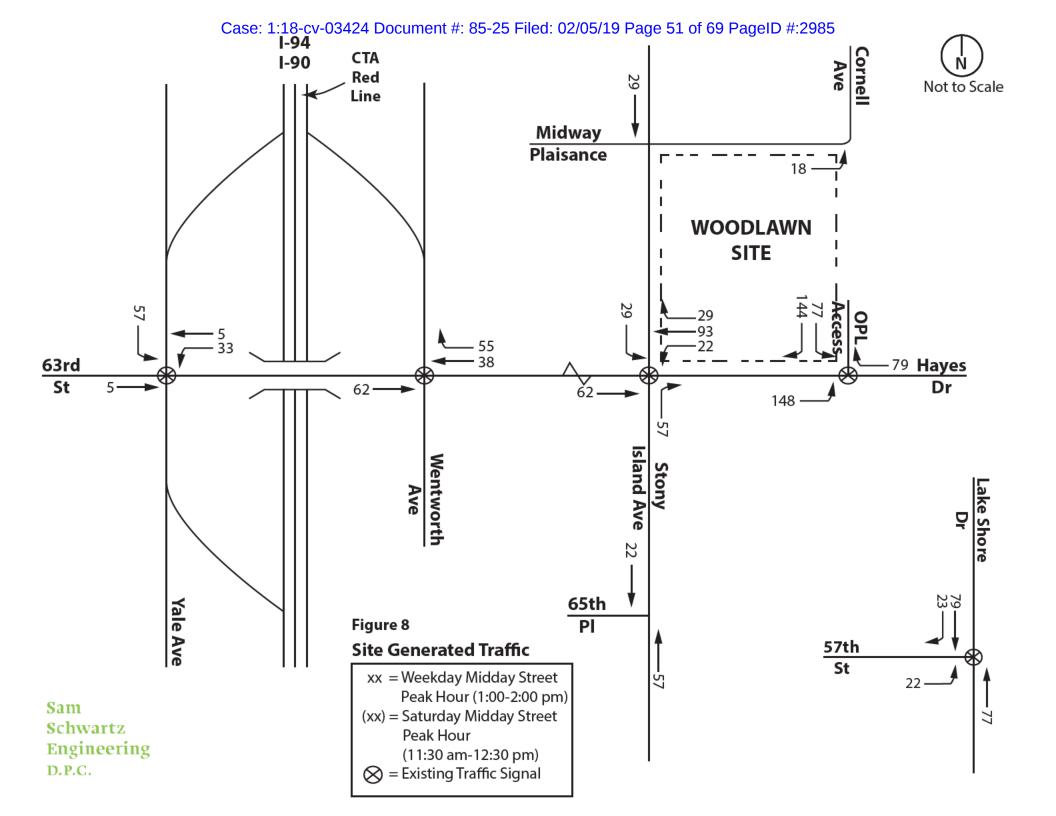
2021 Build Traffic Assignment (with Presidential Library, Woodlawn site)

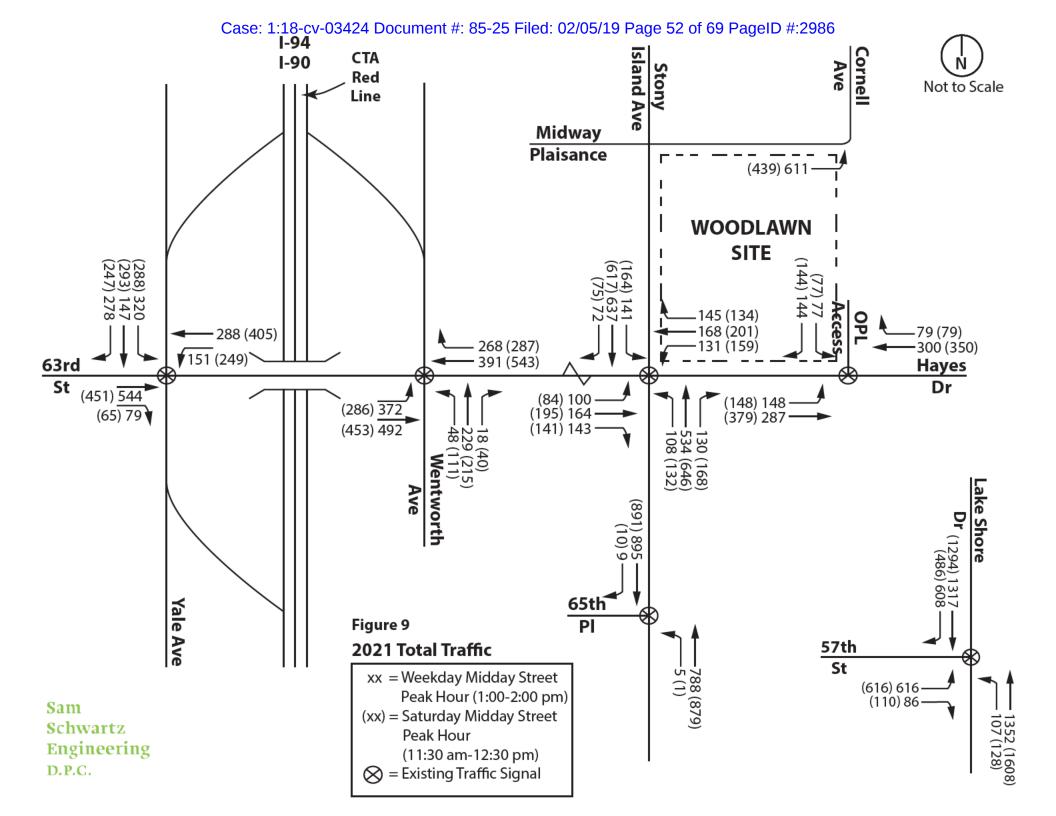
The site-generated traffic volumes (Figure 8) were then added to the 2021 No-Build traffic volumes (Figure 5) and the reassignment of future traffic associated with the vacation of Cornell Avenue (Figure 6) to develop the 2021 Build traffic volumes. The total traffic volumes for the year 2021 are shown on *Figure 9*.

Background Development (Master Plan) Traffic Growth

Traffic growth would also be associated with the expected land developments in the study area. However, there are no known background developments in the study area. There are no "vested" trips to include in this analysis.







TRAFFIC ANALYSIS

The following provides a discussion of the evaluation conducted of the weekday midday and Saturday midday peak hours to determine the impact of the proposed Barack Obama Presidential Library on the surrounding roadway system. These analyses include an examination of turn lane needs, traffic control improvements, functional capacity, parking demand, multi-modal assessment, and construction traffic management.

Capacity Analysis

Capacity analyses were conducted for assessing future traffic conditions of the weekday midday and Saturday midday peak hours, again using the methodologies outlined in the *Highway Capacity Manual*, using Synchro software. Summaries of the capacity analysis results indicating the LOS for all study intersections under future conditions are presented in *Table 5* and are discussed below.

Table 5: Future Level-of-Service Summary

	2	2014	2021		
Intersection/Peak Hour/Lane		isting	Build (with OPL)		
	Delay ^A	LOS ^B	Delay	LOŚ	
63 rd St at Yale Ave/Dan Ryan Ramps					
Weekday Midday Peak Hour					
63 rd St EB approach	34.9	С	33.2	С	
63 rd St WB approach	8.8	Α	9.1	Α	
Yale Ave/Dan Ryan SB approach	12.9	В	14.7	В	
Overall Intersection	19.9	В	19.7	В	
Saturday Midday Peak Hour					
63 rd St EB approach	32.6	С	27.2	С	
63 rd St WB approach	15.3	В	16.1	В	
Yale Ave/Dan Ryan SB approach	13.8	В	18.3	В	
Overall Intersection	19.3	В	19.9	В	
63 rd St at Wentworth Ave/Dan Ryan Ramps					
Weekday Midday Peak Hour					
63 rd St EB approach	25.5	С	22.9	С	
63 rd St WB approach	25.4	С	32.7	С	
Wentworth Ave NB approach	14.7	В	16.7	В	
Overall Intersection	23.4	С	25.5	С	
Saturday Midday Peak Hour					
63 rd St EB approach	27.8	С	16.7	В	
63 rd St WB approach	29.5	С	33.3	C C	
Wentworth Ave NB approach	15.0	В	20.6	С	
Overall Intersection	25.7	С	24.6	С	
63 rd St at Stony Island Ave/Hayes Dr					
Weekday Midday Peak Hour					
63 rd St EB approach	28.5	С	30.1	С	
Hayes Dr WB approach	19.3	В	23.5	С	
Stony Island Ave NB approach	1.6	Α	11.0	В	
Stony Island Ave SB approach	9.3	Α	11.4	В	
Overall Intersection	13.2	В	16.5	В	
Saturday Midday Peak Hour					
63 rd St EB approach	28.5	С	29.9	С	
Hayes Dr WB approach	15.5	В	26.7	С	
Stony Island Ave NB approach	2.2	Α	11.5	В	
Stony Island Ave SB approach	9.1	Α	12.0	В	
Overall Intersection	12.1	В	17.3	В	

Average control delay in seconds per vehicle.

^B Level of service.

Table 5: Future Level-of-Service Summary (cont.)

able 5: Future Level-of-Service Summary (cont.) 2014 2021						
Interception/Deals Harry/Lanes						
Intersection/Peak Hour/Lane			Build (with OPL)			
	Delay A	LOSB	Delay	LOS		
Hayes Dr at Cornell Ave						
Weekday Midday Peak Hour		_		_		
Hayes Dr EB approach	16.1	В	11.6	В		
Hayes Dr WB approach	27.4	C	9.8	Α		
Cornell Ave NB approach	12.6	В				
Cornell Ave SB approach	8.1	Α	34.6	С		
Overall Intersection	14.0	В	15.9	В		
Saturday Midday Peak Hour						
Hayes Dr EB approach	15.6	В	12.5	В		
Hayes Dr WB approach	28.1	С	10.1	В		
Cornell Ave NB approach	12.8	В				
Cornell Ave SB approach	8.2	Α	33.9	С		
Overall Intersection	14.0	В	15.6	В		
Stony Island Ave at Cornell Ave/65 th PI						
Weekday Midday Peak Hour						
Stony Island Ave NB approach	23.5	С	0.1	Α		
Stony Island Ave SB approach	32.3	С				
Cornell Ave WB approach	4.1	Α				
Overall Intersection	21.2	С				
Saturday Midday Peak Hour						
Stony Island Ave NB approach	23.9	С	0.1	Α		
Stony Island Ave SB approach	32.3	C				
Cornell Ave WB approach	3.7	A				
Overall Intersection	20.2	C				
Midway Plaisance (EB) at Cornell Ave						
Weekday Midday Peak Hour						
Midway Plaisance EB approach	31.6	С				
Cornell Ave NB approach	4.6	Ä				
Cornell Ave SB approach	7.6	A				
Overall Intersection	14.0	В				
Saturday Midday Peak Hour	1	_				
Midway Plaisance EB approach	29.6	С				
Cornell Ave NB approach	3.8	Ä				
Cornell Ave SB approach	7.8	A				
Overall Intersection	9.8	Ä				
57 th St at Lake Shore Dr	0.0					
Weekday Midday Peak Hour						
57 th St EB approach	27.4	С	34.0	С		
Lake Shore Dr NB approach	14.2	В	10.6	В		
Lake Shore Dr SB approach	17.3	В	18.1	В		
Overall Intersection	18.6	В	18.1	B		
Saturday Midday Peak Hour	10.0	Ü	10.1	ט		
57 th St EB approach	27.0	С	34.0	С		
Lake Shore Dr NB approach	27.8					
	15.1	В	11.8	В		
Lake Shore Dr SB approach Overall Intersection	16.6	B P	18.7	В		
A Average control delay in seconds per vehicle	18.7	В	18.5	В		

A Average control delay in seconds per vehicle.

B Level of service.

As shown in Table 5, all existing study intersections are expected to continue to operate at acceptable levels of service upon the construction of the proposed Woodlawn site, assuming the traffic control and geometric improvements as described below in the Intersection Recommendations section of this report are implemented. The proposed geometric and traffic control signal improvements are adequate to accommodate future and Woodlawn site traffic.

Intersection Recommendations

The recommendations for intersections are summarized as follows:

- Vacate Cornell Avenue from Midway Plaisance eastbound to Stony Island Avenue. With the
 closure of Cornell Avenue south of Midway Plaisance eastbound, Cornell Avenue should
 become a one-way northbound street between the Midway Plaisance eastbound and
 westbound intersections. This will also necessitate the removal of the traffic control signal at
 this intersection.
- The closure of Cornell Avenue at the Stony Island Avenue/65th Place intersection would also necessitate the removal of the traffic control signal at this intersection. The crosswalk provided on the north leg of this intersection, across Stony Island Avenue, should also be removed. Pedestrians have the opportunity to safely cross Stony Island Avenue at its signalized intersection with Marquette Road, one block (approximately 325 feet) south of 65th Place, as well as two blocks (approximately 900 feet) north of 65th Place at its all-way stop-controlled intersection with 64th Street.
- The intersection of 63rd Street at Hayes Drive and OPL Access should be modified to provide one through lane with shared turning maneuvers on all three approaches. The westbound accepting lane of this intersection should maintain two lanes to provide appropriate capacity/operations at the adjacent signalized intersection with Stony Island Avenue. The intersection should continue to operate under traffic signal control, as it satisfies the Manual of Uniform Traffic Control Devices peak hour warrant (warrant 3). The traffic control signal equipment should be redesigned to accommodate the modified intersection geometrics, along with a new signal timing plan implemented.
- Minor traffic signal timing modifications should be implemented at the intersections of 63rd Street at Yale Avenue (Dan Ryan Expressway On and Off Ramps), Wentworth Avenue (Dan Ryan Expressway On Ramp), and at Stony Island Avenue to provide optimal operations and to facilitate traffic to and from the OPL. Additional traffic control signals along the 63rd Street and Stony Island Avenue corridors may also require minor signal adjustments. The 2021 total traffic volumes can be adequately accommodated within the existing signal timings at the Lake Shore Drive and 57th Street intersection.

Access Recommendations

Access must be provided for service vehicles and to provide secure access. This can be provided from either Stony Island Avenue or the vacated Cornell Avenue, depending on the final design of the building. A transportation security plan will be developed to ensure safe and secure travel for VIPs and to minimize the operations of area traffic.

Wayfinding Recommendations

Due to the expected amount of visitors from outside the Hyde Park neighborhood, a considerable amount of wayfinding should be provided. This includes signs on the Dan Ryan Expressway and Lake Shore Drive, and on local streets directing vehicles to parking. It should be very clear to drivers where they are going. It is suggested that any existing wayfinding signs on the Dan Ryan

Barack Obama Presidential Library - Woodlawn Site, University of Chicago

Expressway and Lake Shore Drive that identify the University of Chicago be modified to include the Library.

VEHICLE AND TOUR BUS PARKING ANALYSIS

Existing Parking Conditions

SSE conducted parking utilization counts on a typical weekday and weekend within the study area to understand the availability of on-street parking. The counts were conducted in the following study area:

- Hayes Drive, between Cornell Avenue and Lake Shore Drive
- 67th Street, between Jeffery Boulevard and Cornell Avenue
- Stony Island Avenue, between 57th Street and 67th Street
- Richards Drive, between Hayes Drive and Marquette Road

All of the parking surveyed is free parking. There are approximately 602 on-street spaces in this overall area.

Based on the surveys conducted by SSE, the utilization of on-street parking in the study area on a weekday is approximately 37% and on a Saturday is approximately 30%. There is a considerable amount of on-street parking available.

There are a number of off-street parking lots in the area of the site, including:

- University of Chicago surface parking lots
- Museum of Science and Industry
- Apostolic Church of God

Estimated Parking Demand

In order to estimate the parking demand generated by the site, SSE gathered historical data from other museums in Chicago to understand the modal split and utilized daily and hourly distribution information from traffic studies conducted for the World Trade Center Memorial & Museum and the Chicago Children's Museum.

Parking is typically designed to accommodate the 30th most popular day of a facility and it is our recommendation that the OPL site be designed to accommodate this demand. Designing a parking facility for the peak day means that for 364 days of the year, there will be excess parking that is unused. Designing the parking at the Woodlawn site to meet the demand of the 30th most popular day will ensure that visitors have an excellent experience accessing the site and that costs and land are used in the most efficient manner.

SSE used the following assumptions to develop the parking demand:

- 800,000 visitors
- Approximately 4,919 visitors would arrive on the 30th day (design day)
- Approximately 8,694 visitors would arrive on the peak day
- 55% of visitors would travel by car

- The average vehicle occupancy would be 2.56 persons per vehicle
- The average visitor time would be 2.5 hours

Table 6 displays the hourly parking demand for the site. As can be seen below, the peak hour of parking demand occurs between 11:00 AM and 12:00 PM. This would require 444 parking spaces for the design day and 784 parking spaces for the peak day.

Table 6: Parking Utilization Estimates

Hour Begin	% of Number of Visitors		Number of Visitors in Vehicles		Number of Vehicles		
	in Facility	30th Day	Peak Day	30th Day	Peak Day	30th Day	Peak Day
9:00 AM	15%	738	1304	406	717	159	280
10:00 AM	35%	1722	3043	947	1674	370	654
11:00 AM	42%	2066	3651	1136	2008	444	784
12:00 PM	36%	1771	3130	974	1722	380	673
1:00 PM	37%	1820	3217	1001	1769	391	691
2:00 PM	38%	1869	3304	1028	1817	402	710
3:00 PM	28%	1377	2434	757	1339	296	523
4:00 PM	14%	689	1217	379	669	148	261
5:00 PM	4%	197	348	108	191	42	75

Parking Recommendations

It is recommended that the Woodlawn site provide enough parking to meet the design day demand, which equates to 444 parking spaces. The parking should be located within Jackson Park or within walking distance to the site.

There will be days when the parking demand exceeds supply provided by the on-site parking garage. This situation is common for many large generators of visitors, and there are a number of different strategies to accommodate this overflow demand. As stated earlier, there are 602 on-street parking spaces within walking distance of the Library and there is very low utilization by the current residents. A number of locations, including the surface parking lots on the University of Chicago campus, the Museum of Science and Industry, and the Apostolic Church of God, that are within a five minute drive and a fifteen minute walk of the site that could accommodate overflow parking. It is recommended that a staff member be given the responsibility of being the transportation coordinator and that person identify these peak days and a valet service or remote shuttles be provided so that visitors can park easily and access the Library.

It is recommended that 111 bicycle parking spaces be provided (1 bicycle space per 4 vehicle spaces) in a highly visible location that is convenient to the visitor access of the OPL. The bike parking should also be close to the Lakefront Trail.

Estimated Tour Bus Demand and Recommendations

In order to estimate the tour bus demand generated by the site, SSE utilized the same data from the parking demand study.

SSE used the following assumptions to develop the parking demand:

- 800,000 visitors
- Approximately 4,919 visitors would arrive on the 30th day (design day)
- Approximately 8,694 visitors would arrive on the peak day
- 9% of visitors would travel by car
- The average bus occupancy would be 41 persons per vehicle
- The average visitor time would be 2.5 hours

This would require 5 bus parking spaces for the design day and 9 bus parking spaces for the peak day.

It is recommended that buses drop off and pick up as close to the site as possible, either curbside on Stony Island Avenue or within Jackson Park. There is ample space on-street on Stony Island Avenue and 60th Street to accomplish this if it cannot be completed on the site itself. It is recommended that buses be staged on one of the surface lots owned by the University of Chicago in the area or the Apostolic Church of God.

MULTI-MODAL ASSESSMENT AND RECOMMENDATIONS

As discussed earlier, the Woodlawn site has adequate transit access. Three CTA bus routes (#6, #15, and #28) run adjacent to the site on Stony Island Avenue. It is located approximately ¼ mile walk from the 59th Street Metra Electric Line. The closest CTA rail station is the East 63rd – Cottage Grove Green Line station, which is over a mile away. Sidewalks are provided on Stony Island Avenue and 63rd Street. The Lakefront Trail is to the east of the site.

The following recommendations will enhance the multi-modal safety and connectivity for all users and make transit, walking, or biking to the site a much more attractive option, reducing the traffic impact on the adjacent neighborhoods.

Transit Connectivity and Operations

The 59th Street Metra station should be renamed 59th Street – Obama Library. The station should be improved as a front door to the OPL, similar to the Metra Electric stations located to the north serving the Hyde Park neighborhood and the University of Chicago. Wayfinding should be provided to guide visitors to the site.

The intersection of 60th Street /Stony Island Avenue should be modified to provide more safety and priority for visitors arriving by transit. This includes reducing the turning radius on to Stony Island Avenue, providing ADA-compliant curb ramps, bumpouts, and leading pedestrian intervals.

A Divvy bikeshare station should be added to provide more convenient access to the Library.

Pedestrian Safety and Connectivity

Consideration should be given to developing a streetscape for 63rd Street between Cottage Grove Avenue and the OPL.

The streets within Jackson Park were originally constructed to allow two horse and buggies to pass one another. This resulted in wide streets that now encourage vehicles to speed through the park and make it difficult for pedestrians to access and traverse different parts of the park. A roundabout should be considered at the intersection of Hayes Drive and Richards Drive. Additional traffic calming measures, such as speed humps, chicanes, and signage should be installed within the Park streets. Safe pedestrian crossings should be installed at the Hayes Drive and Richards Drive and the Marquette Drive and Richards Drive intersections. They may include underpasses, stop control, or speed tables, similar to other pedestrian crossings within the city of Chicago.

Bicycle Safety and Connectivity

The Lakefront Trail is the crown jewel of Chicago's bicycle network. It is recommended that a shared use path be designated within Jackson Park that connects the Lakefront Trail to the OPL. This should connect to the future bicycle facility on Stony Island Avenue. Signage should be provided to direct bicyclists to the park trail and the OPL.

CONSTRUCTION TRAFFIC MANAGEMENT

Stony Island Avenue should not be used for construction access. Cornell Drive should be closed during construction. The construction entrance to the sites should be provided on Hayes Drive at Cornell Avenue. Construction employees should use Stony Island Avenue and Cornell Drive for parking.

CONCLUSION

Analyses have been conducted under existing and future conditions of the intersections in the study area to determine the impact from the proposed Barack Obama Presidential Library (OPL) Woodlawn site. The capacity analysis results indicate that the implementation of geometric and signal improvements will permit the surrounding roadways to operate at acceptable levels of service under all design hours to accommodate the increase in projected traffic from OPL-generated traffic and general traffic growth associated with new development in the surrounding area. Overall, vehicles will be able to easily access the site and the OPL will not have a significant impact on the traffic operations in the neighborhoods.

The following details the recommendations for parking, access, and improvements to the safety and operations of multi-modal access.

- The intersection of Cornell Avenue (OPL Access) and Hayes Drive provides an ideal access point for vehicular traffic. Under this scenario, the OPL Access should be terminated before it reaches Midway Plaisance. The new design of the OPL Access should provide one lane of travel in each direction and be 24 feet in width. Cornell Avenue is currently used as a bypass of Lake Shore Drive for local traffic and does not fit within the Chicago grid. It has moderately low traffic volumes and very high speeds. Vacating Cornell Avenue will not only potentially reduce the amount of asphalt within Jackson Park, but it will also significantly improve the safety within Jackson Park.
- With the closure of Cornell Avenue south of Midway Plaisance eastbound, Cornell Avenue should become one-way northbound between the Midway Plaisance eastbound and westbound intersections and the traffic control signal removed at the Midway Plaisance eastbound intersection. This will reduce the amount of pavement within Jackson Park and provide safety improvements. The closure of Cornell Avenue will also necessitate the removal of the traffic control signal and geometric modifications at Stony Island Avenue/65th Place.
- Minor traffic signal timing/phasing modifications should be implemented at the study area intersections, as appropriate, to provide optimal operations and to facilitate traffic to and from the OPL.
- Prohibiting access on Stony Island Avenue will allow for an excellent pedestrian experience along the corridor and improve operations of through traffic on Stony Island Avenue.
- Service access and secure access can be provided from Stony Island Avenue or Cornell Avenue.
- It is estimated that the site will generate a peak parking demand of 444 vehicular parking spaces on the 30th most popular day (typical design day). It is recommended that all parking be provided within the site.

- There are a number of options to accommodate any overflow parking for special events, including the Museum of Science and Industry, surface lots owned by the University of Chicago in the area, and the Apostolic Church of God. There is also on-street parking in the area.
- It is estimated that the site will generate a peak bus demand of 5 buses on the 30th most popular day (typical design day). It is recommended that buses be staged on one of the surface lots owned by the University of Chicago in the area or the Apostolic Church of God.
- A staff member should be given the responsibility of coordinating all transportation, particularly for special events.
- The 59th Street Metra station should be renamed 59th Street Obama Library. The station should be improved as a front door to the library, similar to the Metra Electric stations located to the north serving the Hyde Park neighborhood and the University of Chicago. Wayfinding should be provided to guide visitors to the site.
- The streets within the park were originally designed to allow horse and buggies to easily traverse through them. This design provided excess space for modern vehicles, which has led to vehicles using these streets to speed through the park. The following are the recommended geometrics for each internal street:
 - Richards Drive, between Marquette Drive and Hayes Drive: Reduce lane width to 10.5 feet and provide parking on both sides of the street. This would reduce the street by 5 feet in width and remove approximately 0.15 acres of asphalt. The "ramps" to Richards Drive from Marquette Drive should be removed and a standard T-intersection should be installed.
 - Marquette Drive, between Stony Island Avenue and South Shore Drive: Reduce lane width to 10.5 feet and provide parking on both sides of the street. This would reduce the street by 5 feet in width and remove approximately 0.35 acres of asphalt.
 - O Hayes Drive, between OPL Access and South Shore Drive: Reduce lane width to 10.5 feet and provide parking on both sides of the street. This would reduce the street by 13 feet in width and remove approximately 0.80 acres of asphalt. The intersection of Hayes Drive and Richards Drive should be converted to a standard roundabout.
- Consideration should be given to developing a streetscape for 63rd Street between the Cottage Grove Avenue and the OPL.
- The intersection of 60th Street/Stony Island Avenue should be modified to provide more safety and priority for pedestrians. This includes reducing the turning radius on to Stony Island Avenue, providing ADA-compliant curb ramps, bumpouts, and leading pedestrian intervals.

Barack Obama Presidential Library - Woodlawn Site, University of Chicago

The Lakefront Trail is the crown jewel of Chicago's bicycle network. It is recommended that a shared use path be designated within Jackson Park that connects the Lakefront Trail to the OPL. This should connect to the future bicycle facility on Stony Island Avenue.

APPENDIX – MULTI-MODAL EXHIBITS

- Existing Transit
- Existing Bicycle Infrastructure
- Travel Times to Site
- Multi-modal Recommendations

